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THE

# ALDEN PROCESS



OF

## PNEUMATIC EVAPORATION

FOR

PRESERVING AND PERFECTING

# Fruits, Vegetables, Meats, Fish, Etc.

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Our improved apparatus will do one-third more work than that erected in 1874, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc. It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by a trial of at least one year's regular work

CAUTION!—We propose to protect our interests and the interests of those purchasing from us, and shall prosecute, to the extent of the law, all persons buying or using any infringements of Alden apparatus and process.

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SAN FRANCISCO:

ALDEN FRUIT PRESERVING COMPANY OF CALIFORNIA,  
426 Montgomery Street.

YC 93632

GIFT OF



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THE  
CIRCULAR

OF THE

Alden Fruit Preserving Company  
OF CALIFORNIA,

1876.

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The experience of the past has strengthened our confidence in the process which secures the same market for succulent products that exists for wheat and wool, viz:

**THE WORLD FOR A MARKET, AND OUR OWN TIME TO SELL.**

The business of evaporating fruits and vegetables, so as to render them capable of shipment to any market in the world, with an indefinite time of transit, and still preserve them with all their desirable qualities, has now assumed a very important place among the prominent and legitimate industries of our growing country.

The Alden Process has passed the experimental stage, and is now so well known and thoroughly established, that its value to producer and consumer is generally recognized. During the past four years, more than 200 Alden factories have been established in the United States, all of which are in full operation in the proper season, producing articles not only cheaper, but also more nearly resembling fresh fruit than any other, and it is the only method of preservation that has risen to sufficient dignity and importance to command for its products a distinctive recognition and remunerative prices in the markets of the world. It is, therefore, only necessary for us to keep the public informed of our improvements in simplifying and cheapening, without entering into any lengthy arguments respecting its value and great superiority over all other methods.

We are prepared to show how all the valuable qualities of a ton of apples can be placed in an imperishable condition and delivered in Liverpool at a gross cost of not more than twenty dollars, and we claim that our processed apples are better than the fresh apples shipped from the Atlantic States to Liverpool, in such large quantities, selling there at \$52 per ton, leaving a difference of over \$30 per ton in favor of the Alden apple. We have purposely chosen the least profitable article evaporated, sending it to a distant market in the face of unusual competition, to show to what vast proportions we may expect the trade to grow.

Even in the midst of the fresh fruit season, consumers in San Francisco can buy Alden Fruit cheaper, (when there is any in the market) than its equivalent of fresh fruit at retail.

#### **COST AS COMPARED WITH OTHER METHODS OF PRESERVING.**

Paring and slicing require the same labor and room for all methods, and there is no way of disposing of fruit with less trouble and expense than to spread it on our screens. Then, one-fourth of a cord of wood, or its equivalent of coal, will run one Evaporator, at a proper degree of heat, for twenty-four hours, and will expel the moisture from four thousand pounds of fruit. This cost of fuel does not vary much from the cost of extra labor to spread and gather sun-dried fruit. So we may say that the real difference in cost between the two systems rests in the *interest* upon the original cost of an Alden factory.

The practical business man will consider rather the percentage of profit yielded by the year's work, than the first cost of the apparatus ; it is enough for him to know that there is a demand for the goods, and that the business will "pay." That the Alden business does pay, is demonstrated by the facts that the goods find a ready sale at remunerative prices, and that many new factories are started every year. Alden goods are better and cheaper than sun-dried or canned fruits, because, we buy direct from the orchard when just ripe enough, yet perfectly fresh and unbruised, and we cure-preserve (*not dry*) the fruit ; and as all the work is done under cover, in a few hours' time the disgustingly unwholesome deposits of insects and dust are excluded. The natural fresh color and flavor remain in it, and instead of deteriorating, or wasting any of the valuable qualities, we convert a *pint* of the starch into sugar, so that in cooking one-half the sugar necessary for fresh fruit is ample for these "raisined" products of the Alden process. On the other hand, only such fruits as won't sell fresh are used for sun-drying, and the work is generally done without regard to cleanliness. While it remains exposed in the open air about 15 days, to insects and dust, fermentation takes place which entirely destroys the saccharine matter, changing the color, texture and flavor, and when prepared for cooking the necessary washing wastes considerable of the substance; besides a large part of the weight of ordinary dried fruit is dust, and what is used of such articles is tough, sour, indigestible, and unfit for human food. *Upon the average, the prices for the Alden goods are about three times those of common dried fruit.*

#### **THE REAL COMPETITION IS WITH CANNED FRUITS.**

The business of canning fruits and vegetables has assumed immense proportions, and millions of cans of peaches, tomatoes, corn, etc., are annually packed in the United States. That the Alden goods will finally take the place of canned goods, there is now no room to doubt; and they are destined to find a demand as much larger than canned goods ever had, as the price is more reasonable and the product better. The cost of tin cans is, in some instances, nearly four times the cost of the fruit to fill them, and the loss through leakage cannot be reduced in practice below ten per cent. Our packages cost fair

less than the outside cases for the cans, and our *freight* is, on the average, about *one-tenth*. This item of freight alone is worthy of careful consideration. To illustrate: one case of "Alden onions" weighing 58 lbs. gross, is equivalent, for all culinary purposes, to 550 lbs., or five bags of fresh; one case of "Alden peas" weighing 43 lbs., is equivalent to, and will go as far in family use, as seven cases of canned peas weighing 350 lbs. The same rule will apply to all the fruits and vegetables prepared by this process. Canning is generally done in cities. Fruits for the city are picked from the trees before fully ripe, and the canners use the cheapest of them. The bulk of the articles that go into cans are bruised, wilted, and often in an advanced stage of decomposition. By cooking and doctoring them with cheap sugar, and excluding the air, decay is arrested, but they have lost their fruity flavor, which no art can restore. The smallest opening in the can admitting air, quickly destroys the contents. Canned goods, when opened, must be used at once. Not so with Alden goods—you can open the package, remove the quantity you wish to use, without deteriorating the remainder. They will keep for years in any climate.

#### **FRUIT IN TIN CANS POISONOUS.**

Read what the Boston *Journal of Chemistry* has to say on this point:

"The impression prevails among those who freely use fruits put up in tin cans, that they are injured thereby, and this impression is in many cases correct. We have long contended that all preserved fruits and vegetables should be dried, or stored in glass, and that no *metal* of any kind should be brought in contact with them. All fruits contain more or less of vegetable acids, and others that are highly corrosive are often formed by fermentation, and the metallic vessels are considerably acted upon. Tin cans are held together by solder, an alloy into which lead enters largely. This metal is easily corroded by vegetable acids, and poisonous salts are formed. Undoubtedly many persons are greatly injured by eating tomatoes, peaches, etc., which have been placed in tin cans, and we advise our friends to discontinue the use of such articles."

#### **CAN WE COMPETE WITH EASTERN MANUFACTURERS ?**

Yes; if we work *for and maintain the highest standard of excellence*. Herein lies the road to certain success. If we produce a uniformly good article, we can always realize a good price, and successfully compete with Eastern and European manufacturers; and there is no mystery about the Alden business; any person of ordinary capacity can understand and manage it successfully. It only requires careful application.

Many of the factories in the Eastern States produce nothing but apples, corn, and pumpkins, and nowhere east of the Rocky Mountains can Plums, Prunes, Apricots, Figs and Raisin-grapes be successfully raised. In these fruits California has a monopoly, and the prediction is not unreasonable that in a few years we will supply the \$19,000,000 worth of such dried fruits annually imported into the United States. All our fruits and vegetables are larger and smoother, contain more saccharine matter, and the percentage of yield is largely

in our favor. Then, too, our working season is much longer, and we are blessed with an entire immunity from blight, the curculio and other insects. As the business of raising and curing such fruits is both respectable and profitable, we cannot too often urge people to plant largely of the *finer* varieties, such as plums, prunes, figs, peaches, apricots, raisin grapes and Zante currants. There is no danger of overstocking the market with such articles, when properly cured and put in attractive packages. With the exception of peaches, none of the fruits named can be successfully raised East of the Rocky Mountains, and even the peach tree is a more regular and certain bearer in California than in Delaware, which is at present the great peach orchard of the United States, and produced in the past season 10,000,000 baskets of peaches of thirty pounds each, which, at twenty-five cents per basket, would amount to \$2,500,000. There is not here the market for fresh fruits that exists and is within reach of the Delaware orchardist, but Philadelphia and New York can be supplied with Alden peaches as cheaply from California as from Delaware. Nice Alden peaches are in demand in the Eastern markets at from thirty-five to fifty cents per pound, currency.

Can these fruits be raised here with profit at one cent per pound? We think so, and offer the following as the reason for our faith: one hundred and thirty trees to the acre, and one hundred pounds of fruit to the tree, is a low estimate, and yet it will yield \$130 per acre, at one cent per pound. And if the curing factory is located in, or near the orchard, there will be no outlay for boxes, freight, insurance and commissions, nor can there be any loss from waste. These fruits—take the prune for example, which yields one pound from three—can be cured at an expense, for labor, fuel, boxes, etc., of three cents per pound, making the total cost of Alden prunes, which are infinitely superior to the imported article, six cents per pound. These prunes could then be afforded at ten cents per pound, which would be within the means of the poorer classes. This estimate would leave a handsome profit for the grower, the manufacturer and the merchant. At present the factories pay two and a half cents for the prunes and plums, and sell them at from eighteen to thirty cents per pound. The present great drawback is that these finer varieties of fruits are not yet raised in as large quantities as could be desired. According to the Surveyor General's report, there were over a million and a half of apple, and only twenty-two thousand prune trees in the State in 1874. Farmers are satisfied with one-half to one cent per pound for their apples, and we predict that the time will come when they will sell their prunes, etc., for one cent per pound, or less, and then make more money than can be realized from wheat or stock raising. A prune tree will not bear as many pounds as an apple tree, but an acre will carry more trees of the varieties above named than of apple trees, and the result in weight is about the same, while in point of commercial value the difference is vastly in favor of the plums, prunes, etc.

The first, simplest and best method of disposing of the fruit crop is to sell on the ground, receive your check and draw your money daily, or, at longest, weekly. A sure thing is the best thing for the grower. By adopting the Alden

process of preserving, the grower can hold his products for a remunerative market, instead of being forced by the perishable condition of his fruits into a glutted market, so often artificially made by the intentional movements of dealers.

There is always a market for first-class dried and conserved fruits, and the demand for American fruits of this description is rapidly increasing in the foreign market, and will be much more rapid when brands are found of a uniform and reliable quality.

#### **HINTS FOR LOCAL MERCHANTS AND LAND OWNERS.**

All the finer varieties of fruits can be raised in your locality, and if you want business to increase, and purchasers for your land, get an Alden factory established in your midst. Each evaporator will work up 100 tons of fruit in about four months, and the product will be worth at the factory at least \$10,000. No manufacturing business requiring so small an outlay, will do so much for your place. The money expended for fuel, labor, fruit, etc., is all distributed among your own citizens, and no other business is so likely to grow, for people will resurrect their old orchards, and plant new ones, when you show them a reliable market for their fruit. More fruit trees will be planted this Winter in the locality where Alden factories have been in operation during the past season, than in any former year. People have discovered that fruit raising *will pay* better than wheat, without exhausting the soil, and they appreciate, too, that the raising of such commercial fruit *is the highest agriculture*. Nothing has such a tendency to enhance the value of land, for it renders land capable of producing at least ten times the income that it would bring in grain or in stock. The Alden business could be introduced with great advantage in young colonies. We think that five families, starting with one evaporator, and cultivating ten acres each, could raise enough vegetables to make a successful run for the first season. The vegetables and small fruits can be raised between the rows of trees in a young orchard, on moist land, or where water for irrigation can be obtained; then with ten acres each of plums and prunes, which commence bearing in three years, the colonists would have a large and certain income—in fact be rich.

Of course it would be better to start on a larger scale, and so realize a part of the profit on the increased value of the adjoining lands, but we have outlined what can be done with small beginnings—a rare thing for Californians to notice.

#### **THE GAIN OF ONE YEAR'S EXPERIENCE.**

The Alden business is in its infancy, and a great deal may yet be learned. A little experience will develop many improvements, and cut down expenses of operating a factory. This may be illustrated by reference to the work done at San Lorenzo during 1873 and 1874; in the former year, that factory was in operation nearly six months, and evaporated 783,521 pounds of fruits, while during 1874, *in less than four months time*, 1,013,689 pounds of the same kind of fruits were evaporated, showing an increase of 30 per cent.; add to this the

decrease in the expense accounts, aggregating 1,100, according to the report of the Superintendent, and we have a very handsome gain as the result of one year's experience.

Another encouraging feature of this business is the fact that the price of Alden goods is gradually advancing. The first Alden peaches offered in Philadelphia, four years ago, brought only 26 cents per pound. They are in great demand now in all the market centres in the East, at from 35 to 45 cents per pound, according to quality. The San Francisco price for peaches last year was 25 cents; this year they command 30 to 35 cents, and the supply has long since been exhausted. Alden apples sold last year at 10 and 12 cents; this year they sell readily at 15 to 18 cents, gold; and in Chicago at 20 cents, currency.

#### **LABOR-SAVING MACHINERY.**

Our policy is to employ the best workmanship and to use the best material with instructions to do everything in the most thorough manner. We have several persons engaged in devising improvements in our apparatus, and in labor saving machinery, such as parers and slicers, plum pitters, contrivances for steaming vegetables, etc., and have correspondents similarly engaged in the East. It is our design to group together as many of such improvements as possible, and offer to purchasers from us the benefit of all.

The smaller and cheaper fruit-driers so industriously paraded before the public, since the successful introduction of the Alden process, have caused us to consider the question of manufacturing a cheap Alden Machine for persons who prefer to operate on a small scale. A little reflection, however, has convinced us that such a course would result in loss to our patrons and ruin to our permanent interests. To be *sold* cheaply, the machine must be *made* cheaply. Let any practical man examine the small driers, with sheet iron heaters, in the market, and calculate how soon they will burn out, and how often the fire must receive attention to maintain a uniform degree of heat, *which is so very essential*; let him estimate how many square feet of radiating surface they afford, and what the chances are for the escape of heat so soon as the lumber begins to shrink; let him calculate, also, what the chances are for breaking down, and see if he can find *one* that has been used the second season. And then let him handle and taste the fruit dried by such small and cheap machines, and follow them into the markets to ascertain the difference in price between them and the Alden products, and he will need no further argument from us.

We are, however, prepared to furnish, expressly for individual fruit growers, a smaller evaporator, of about one-half the price and capacity of our New Model Evaporator. The smaller machine can be erected in any ordinary one-story building at a trifling expense; its products are equal in appearance and quality to those of the larger machines, and it is managed with the greatest economy and ease; any kind of fuel can be used. We do not recommend small machines, for reasons already given, but will give a further description, etc., of them to persons who may wish to engage in the Alden business on a small scale.

## THE NEW ALDEN MODEL EVAPORATOR

Recommends the Alden Process freshly, and more forcibly than ever, to farming, fruit growing and investing interests.

Those who now engage in the business of Pneumatic Evaporation will enjoy the advantage of a saving of sixty per cent. on the former cost of the Evaporating Apparatus, and will be able to carry on the manufacture at a current expense of only about two-thirds as great as heretofore, in consequence of the great simplification which has been attained as the result of last year's extensive experience. We are now, therefore, enabled to offer for \$1,000 our new Model Evaporator, which has all the recent improvements, and is better adapted to the use of individuals and communities than the old model, which could only be made and operated at a cost which placed it beyond the reach of those of moderate means.

### DESCRIPTION OF ALDEN'S PNEUMATIC EVAPORATOR.

The apparatus used is so completely adapted to its purposes, and such complete directions are given for its operation, that it can be properly used by any one of ordinary capacity, and unskilled, and otherwise unavailable labor (that of boys and girls), is advantageously employed. Fruits and vegetables can be bought, evaporated, and prepared for market the same day. The improved machinery for preparing (peeling, slicing, etc.) has proved to be perfectly adapted to its uses, and there is now no difficulty in producing such cleanly cut, unbruised fruits as are required in order to manufacture first-class evaporated articles.

This promises a revolution in agriculture and commerce. Succulent crops of all kinds, though worth, where marketable, four or five times the product of the same acres in cereals, have hitherto been worthless, on a large scale, at a little distance from city markets. Their tenderness and bulkiness forbade transportation to a distant market, and thus agriculture has been generally confined to a few hardy staples, affording but a meagre profit. Now, however, these richest of crops (the succulent) are to be also the safest and cheapest to market. *A thousand dollars' worth of apples, peaches, tomatoes, sweet potatoes, pumpkins, or anything else of the sort, will not only come from one-fourth the acres required for one thousand dollars' worth of wheat, or any other of the present agricultural staples, but will go into one-fourth the barrels, and will go to any port on the globe for one-fourth the freight.*

The inventor of the Alden Processes expects, not without reason, to see agriculture raised, by his agency, from one of the worst paid pursuits of men, to one of the most lucrative. The means of doing this, demand the urgent attention of every farmer, and of every farming community.

### THE PHILOSOPHY OF FRUIT DRYING.

To dry fruit so as to make it keep is the entire idea of many persons. Dried fruit is dried fruit to them, and there are consumers just like them, and hence

the poorer qualities will find a market at a poor price. Others have respect to neatness in drying their fruit, and find the extra care and attention bestowed in preserving the color uniform, without the appearance of burned or decayed spots, amply rewarded in the extra price their fruit brings in the market. There is a step far above this which has been stimulated by Mr. Alden, whose process of dessicating fruit has revealed a philosophy in the matter which is entirely revolutionizing the old process of dessication, and which is still not generally understood.

The true philosophy of fruit drying is to remove the watery portions of the fruit, so as to convert the saccharine elements into sugar, by a rapid ripening process, in the shortest possible time without cooking the fruit. Cooking will alter the flavor of most fresh fruits; so will a slow process of drying, giving portions of it the taste of fruit partially decayed. The more rapidly the watery portions are removed when the fruit has arrived at perfection, the richer and more permanent will be its flavor. The more completely it is excluded from the oxygen of the air, the more perfect will be its color. The rapidity of the process of drying increases the amount of sugar, sometimes as much as 25 per cent., and the increase of sugar will be just in proportion to the rapidity with which the fluid portions of the fruit are removed, while the fruit remains uninjured by heat.

Every one who has boiled the sap of sugar maple, or juice of sorgham, or the sugar beet, knows that if these juices are left to evaporate slowly no sugar will be formed—saccharine matter will either pass off in evaporation or will be converted into acetic acid—but if they are evaporated by boiling, sugar will be formed, and the more briskly they are kept boiling, the greater the amount of sugar from a given quantity of juice. The chemical change by which the starchy portions of the fruit is converted into sugar, when the temperature is raised, is very similar to that which takes place in the ripening of fruit on the tree under the warm rays of the sun, but much more rapidly.

A few days in the warm sun will convert so much of the juices of the gooseberry and grape into sugar that the acid and astringent green fruit becomes a delicious luxury. A few hours when the fruit arrives at the proper stage under proper conditions will suffice for even a greater change in the drying process. This is a study that has only just begun to awake the attention of progressive fruit growers. If the fruit is kept at a temperature of  $212^{\circ}$  it is cooked while the evaporation is taking place, and no after care can restore the flavor once changed by this temperature. This must be carefully kept in mind. Another point is equally important—the surface of the drying fruit should be kept moist and soft, so as to allow the easy and rapid passage of the internal moisture to the surface, and a rapid current of heated air should pass over the surface of the fruit, while drying, to carry away the moisture. Hence it is evident that cold air must not be admitted into any devise for drying fruit, and also that a draft must be opened above the fruit where the moisture-charged heated air will rapidly pass off.

It has been objected that fruit can never dry in a heated atmosphere filled with moisture. This objection is theoretical, not philosophical or real, when the moist air is in motion, as our philosophies taught us years ago.

Air at the freezing point,  $32^{\circ}$ , holds one 160th of its weight of water as vapor, and its capacity for holding moisture is doubled with every  $27^{\circ}$  of temperature above  $32^{\circ}$ , or the freezing point, so that at  $59^{\circ}$  of the thermometer the air will absorb the 80th part of its weight; at  $86^{\circ}$  the 40th; at  $113^{\circ}$  the 20th; at  $140^{\circ}$  10th; at  $167^{\circ}$ , 5th; at  $194^{\circ}$ , the 2.5; and at  $221^{\circ}$  F. the air will absorb almost its own weight of moisture, or nearly one pound of water to every one sixth cubic feet of air. Now it is evident that if this amount of moisture was contained in the air at rest, the fruit would never dry. Hence the necessity of carrying off the moisture—loaded air—as rapidly as possible by an active draft.

Another fact that needs to enter into the account: evaporation takes place at the surface of bodies, and is influenced not only by temperature and dryness, but by the stillness and density of the air in which the article to be dried is placed.

If the air be heated and at rest, as in an air tight oven, fruit will not dry, though the dry air will be loaded with moisture. Wind, air in motion, is necessary to dry any substance, and more is due to the wind than to the sun in drying the earth after a shower; so a current of heated dry air, constantly supplying the place of the moisture charged air carried off by the draft, is the grand secret of success in drying fruits.

#### **NATURE OF THE ALDEN EVAPORATING PROCESS.**

Pneumatic Evaporation as scientifically perfected by Mr. Alden, is essentially a novel art; not only distinct from, but opposite to desiccation, so called, in chemical principles and practical results. It is a process which not only fore-stalls decay, and which not only seizes and perpetuates the fresh flavor, color and texture of the article (animal or vegetable) subjected to it, but which, in doing these things, at the same time carries out the organic process of ripening itself to an artificial perfection, on the same principles incompletely used by Nature, and with a correspondent increase of the nutritive product.

The means employed by Mr. Alden to produce these results are threefold—namely, rapid circulation of hot air, accurately adapted and graduated heat, and at all times a considerable portion of humidity. It will be noticed that each of these points stand directly contrary both to the process of desiccation or kiln drying, and to that of ordinary air drying.

In all forms of life, animated and vegetative, water is the circulating medium of life and growth, until these are perfected, and then reverses its function, and becomes the minister of death and decay. To absorb the water, therefore, is to stop the integrating or disintegrating process, whichever may be going on, with equal certainty. In the Alden process, the rapid circulation of the fresh, heated current, first stimulates the circulation of the sap in the fruit, and keeps up a rapid oxygenation and *super-ripening* of the mucous ingredients to grape sugar, so long as any free moisture remains. At the end, the free moisture having

been partly fixed and the rest removed, the fruit or vegetable tissue remain incorruptible by the further access of oxygen, to indefinite time.

At first, while fresh and wet on the surface, the vegetative tissue will endure for a few moments a high degree of heat, not only without scalding, but without becoming heated ; just as one may pick up a living coal or snuff a candle with a moistened thumb and finger. As the surface moisture evaporates, that within is drawn forth, by the law of equilibrium, to take its place. In this manner an internal circulation is excited and kept up throughout the process, answering to that in living fruit on the tree, and with similar effect. The active circulation of the acidulated and oxygenated juice, at the proper temperature, through the mass of crude material, brings the combining atoms into contact, and is actually found to effect a preternaturally rapid oxidization of the mucous or starchy ingredients ; "ripening" them, in other words, to saccharine matter, to the amount, in two or three hours, of nearly twenty-five per cent. on the whole amount of such matter developed by weeks of ripening on the tree. This marvellous result has been incontestably ascertained by chemical analysis of the highest authority.

As soon, however, as the average moisture of the fruit begins to diminish in the heated current, so as to raise its temperature, the fruit is moved upward a regular stage, and a fresh screen of fruit is introduced in its place and beneath it. The fresh screen of fruit takes up its quota of heat from the air current, leaving the latter to pass upwards to the first screen, just as much less hot as the fruit above is less moist and less able to absorb the heat by evaporation. (All know that evaporation is cooling.) At intervals, scientifically adjusted, the whole series of fruit screens in the evaporator is moved upward at once (being carried by an endless chain), so that every screen of fruit, at every stage of its progress, preserves a uniform proportion of heat to moisture, and therefore a uniform temperature. As the moisture of the fruit diminishes, so does the heat of the air current that strikes it ; and thus the finished fruit coming out at the top of the evaporator with the tepid and vaporous exhaust of the air current, is actually neither cooler nor warmer than the fresh fruit while passing through the fresh heat at the beginning.

In the course of the first five or six hours (or with some fruits and vegetables a longer time), the first screen of fruit introduced has reached the top of the evaporator in a finished state, proof henceforth against decay. The whole shaft is now filled with say one thousand pounds. Going off finished, one screen at a time, every few minutes, in another six hours, more or less, the whole shaft full will be issued (giving place to as many more) in two modes ; eighty per cent. of it, say eight hundred pounds, having flown away on the wings of the wind as vaporized water, and two hundred pounds having been lifted off and laid aside by human hands as ALDEN FRUIT, imperishable, but bright, clean and fresh, in color and taste, as it first went in. All the moisture that has not become chemically engaged as hydrate, in the glucose syrup that gives Alden Fruit its peculiar soft and moist feel to the fingers, has been carried off in the

air. Having accomplished its part in the ripening and super-ripening process, it is removed before it can commence pulling down what it has built up.

### THE ALDEN PROCESS

May be briefly described as a method for maturing and preserving animal and vegetable substances, in part through evaporation, and in part through chemical binding of their organic moisture, by exposing the same to a current of heated and humid air, increasing in humidity, and decreasing in heat as the evaporation proceeds, said current of air moving in the same direction with the articles to be treated.

The principal part of the apparatus consists of a vertical chamber, or shaft, twenty to twenty-five feet high, and three to five feet square, containing a series of frames, one above another, four and one quarter inches apart, covered with netting, and moved upward all together by endless chains. The heating apparatus is placed under this chamber, from which currents of air, heated to any required temperature, pass up, through, and around the frames. On each frame is spread ten to twenty pounds of fruit. The lowest frame is first placed in the chamber directly over the heat, at the bottom of the shaft, where it remains from two to six minutes. It is then moved up four and one-quarter inches, and another frame of fruit is placed beneath it. At regular intervals the whole series of frames are moved upward four and one quarter inches, and a fresh frame is put on beneath them, until the frames are all in, containing (if apples) fifteen to thirty bushels of fruit. At this time the shaft being full, one frame is taken off at the top, and one is put in at the bottom at regular intervals, varying with the variety of fruit treated, and the thickness of the slices or pieces. Each bushel of apples contains about forty pounds of water, which is seized by the ascending air, and passes with it up, through, and around the fruit as the moisture is taken gradually from it, enveloping it to the last in a cloud of vapor. The pores of the fruit are thus kept open, free for the circulation and exit of vapor, until all the free water is removed, the remainder (16 per cent.) being held as hydrate. It is well known that fruit will not mature, ripen or sweeten up, in strictly dry weather, nor in cold wet weather. The Alden Evaporated Fruit follows the law of nature in this respect. It does not become, therefore, a dried fruit, in the ordinary acceptation of that term, but it is *preserved* in its own concentrated *juices*, and will keep for years in any climate. The flavor is retained, and the development of glucose, or grape sugar, is perfect.

On the other hand, a current of *dry heated air* applied to the cut surfaces of fresh fruit, will form a skin or covering, which confines the acids, etc., within, and, under a moderate heat, partial fermentation ensues, as in sun-dried fruits; while, if the heat is too great, in a close chamber or oven, the saccharine matter is changed into *caramel*, or *burnt sugar*, the result of which is seen in the dark-colored, partially soured, leathery, decayed, or charred fruits, found in the market, selling for about one-half the price of the Alden goods. The cores and skins of apples can be, at a trifling expense, converted into pure vinegar, cider, or jelly.

### BUILDINGS.

A balloon-frame, three-story building, say 40x32 feet, 28 feet high, with roof of one-quarter pitch, and 7-foot cellar, will receive from 3 to 5 Evaporators, and afford room for manufacturing purposes, storage, etc. The fruits, etc., are received, prepared, (peeled, sliced, etc.), and put into the Evaporator on the first story, pass upward, through the machines to the third story, where they are removed from the Evaporators and thrown down through openings in the floor to the second story, where they can be packed at leisure. Such a building will cost from \$1,000 to \$1,500. Almost any ordinary building can be cheaply altered into a serviceable factory; the essential point is height, which can rapidly be obtained by raising a small portion of the roof of a low building. A common barn can, at a small cost, be adapted to the reception of Evaporators; small platforms, accessible by a ladder, or by cheap stairs, can be erected at the tops of the machines, and the remainder of the building may be left entirely open. The Company furnishes to each purchaser, without charge, plans, specifications, working-drawings and directions, either for the erection of new buildings, or the alteration of old, and give their superintendence to the perfect erection of the Evaporators, when desired.

### INSTRUCTIONS TO SUPERINTENDENTS.

Engage your fruit ahead as far as possible. Luck may bring a feast to-day, and a famine to-morrow.

Keep a careful account of your expenditures, and a close watch of your employees.

*Maintain a steady heat.* This is important. We believe it can be done best by the foreman in charge, if the fuel is placed conveniently. The fires will not need more than two five-minute visits per hour. Thus you dispense with a fireman.

Do not admit too much cold air on the heater. Generally you will find about two feet of opening sufficient, and this should be divided between the several openings.

*Watch your Evaporators closely.* A change in the direction or velocity of the wind, or in the moisture of the air, affects your work at once. Examine the frames often from the middle, as well as from the upper doors, to be sure that nothing is going wrong.

Never skip a frame nor allow cut fruit to accumulate. It will interfere with the discipline of your employees, and impair the quality of your products.

Leave openings between the frames and evaporators on alternate sides of the evaporator, to insure a zigzag current of the heat.

*Keep the millers away from your dried fruit. That is a vital point.* To secure it you will need tight bins for storing your product, and it would be well to have wire or mosquito netting in your doors and windows. *Keep posted on the market.* It will not always pay best to work what promises the largest profit. The commission merchant needs a *full line* and regular supply of goods, and can make

better sales if he has them. *Help one another.* Factories will not stand in the market so much upon their individual merits, as upon the general reputation of Alden goods.

#### **ALDEN FRUIT JELLY, FRUIT FLOUR AND CRYSTALLIZED FRUITS.**

The prosecution of the business is constantly developing new sources of profit. Alden Fruit Jelly, made from the cores and skins of apples, etc., has been extensively sold for the last three years, and is superior to any other in the market. The finest qualities of crystallized fruits are made by immersing peaches, citron, melon, etc., in hot sugar syrup, rolling them in powdered sugar, and then evaporating them. These candied products are equal to the imported candied fruits, and command high prices. Making conserves and marmalade have only begun to attract the attention of fruit growers. But these methods are designed to form an important branch of this department of industry, and if conserves and marmalade are well prepared they will largely increase the demand for American productions, and stimulate the growing of fruit. We are now largely dependent on the French for our conserved fruits, which are sold at very high prices, but which may just as well be prepared here. During the past year Vegetable Flour has been introduced to the trade; the only articles extensively treated have been pumpkins and squashes: the pumpkin and squash flour has been sold in large quantities at thirty cents per pound (at wholesale) and has given unqualified satisfaction.

#### **ALDEN RAISINS.**

Several of our factories have experimented, to some extent, on grapes, and the raisins produced have given great satisfaction, both financially and otherwise; so much so that all the factories will, during the coming season, make preparations for manufacturing raisins in large quantities. These raisins have been carefully examined by competent judges, all of whom have pronounced them excellent. We copy a few of the many favorable press notices which our raisins have received:

"We have tasted some white Muscat raisins dried by the Alden Process at Vacaville, and they are different in appearance and flavor from any other raisin. They suit us better than any other grape we have tasted, save the Huasco of Peru.—*Alta.*

**LOS ANGELES RAISINS.**—We have before us samples of raisins from the Los Angeles Alden Fruit Preserving Company, of which Geo. B. Davis is manager. There are two kinds, the Los Angeles Mission Grape and the White Muscat. Both will have a thorough examination. Those of the Mission variety are of medium size only, but are clean and glossy in appearance, satisfactory to the touch, and are sweet and rich; possessing all the qualities of a good cooking raisin. In proof of its marketable value is the fact that a large proportion of the late crop has been sold at 15 cents per pound. A sale of 15 tons was made to one purchaser in Arizona, at the above price.

The Muscats are of larger size and lighter color, presenting an inviting appearance, having an excellent flavor. This variety of grape is now figuring conspicuously in the great raisin movement, and will undoubtedly be one of the leading varieties that are to be converted into raisins.

In conversing with a prominent retail grocer recently, he expressed the opinion that at the expiration of the next five years, there would be no foreign raisins offered in the markets of this country.—*Pacific Rural Press*.

The foregoing is from our Circular of last year. During the past season our expectations have been "fully realized." The raisins manufactured by the factory at Jackson, in Amador County, are very fine, both in flavor and color, and have found a ready sale at good prices. The proprietors of that factory are Italians, who have lived in Spain and have had some experience in manipulating grapes, and they have discovered the proper way to treat grapes preparatory to making raisins by the Alden Process. This discovery is not patented and will be communicated to all who purchase from us. They succeeded best with the Muscat of Alexandria, samples of which can be seen in our office.

An Alden Factory of five evaporators, new style, has a capacity of turning out three thousand pounds of such raisins every twenty-four hours, at an expenditure of \$25.00 for labor, fuel, etc. Let us put this raisin proposition in tabular form :

9,000 lbs. grapes, at 1 cent per lb.	\$ 90 00
Labor, fuel, etc.	20 00
Boxes and packing 3,000 lbs. raisins.	35 00
	_____
Total cost of producing same.	\$145 00
3,000 lbs. raisins (1 lb from 3) at 10 cts. per lb.	\$300 00
Deduct cost of producing same.	145 00
	_____
Profit for 24 hours.	\$ 155 00
Profit for 30 days, of 24 hours.	4,650 00

We are prepared to guarantee above results, under proper management, and have no doubt such raisins, when once known in the market, will sell for more than ten cents per pound. But even at that price, the result of thirty days' operation would be ten per cent. interest upon \$46,500, which ought to satisfy any person of moderate expectations, and certainly pays better than feeding grapes to hogs and cattle.

There are other varieties of grapes that, cured by the Alden process, are very nice for cooking purposes, but we would advise grafting the Muscat, Larga, Seedless Sultana and Zante currant upon the common vines. The operation is simple, and the new wood will bear a moderate crop the first year. The Larga is a prolific bearer of large, luscious grapes, which make excellent raisins, yielding one pound from two, though most people prefer the flavor of the Muscat of Alexandria.

#### INDIVIDUAL VERSUS CO-OPERATIVE ENTERPRISE.

Upon this point we submit the following from the *Pacific Rural Press* of October 3, 1874.

\* \* \* \* \*

"It is evident that for the individual farmer to conduct a manufacturing business would be poor policy. Such things can only be done successfully by combination, centralization and division of labor. Even if each person attempting to carry on the business of drying fruit

was for a brief time successful, there would soon be such a disparity in the quality of the product, and so much of the poorly prepared article thrown on the market, that the reputation of California dried fruits would be anything but enviable. And if for no other reason than that the general good in this case would be the only sure profit of the individual, the co-operative plan recommends itself.

The dairy-men of New York and other States were forced to it, and the result was the establishment of large factories on the co-operative plan, which now turn out cheese of a standard, uniform and excellent quality.

Suppose that each of the fruit growers of a certain locality was to carry his fruit on specified contract terms to a certain factory, of a size proportionate to the resources of the section in which it was located, and conducted by a skillful superintendent of business capacity, whose attention would be solely devoted to this specialty. The consequence would be that the manufactured article would be of standard excellence, the farmers would be relieved of personal embarrassment and responsibility, and the profits would be vastly increased. *The plan has been tried, and with success."*

#### ADVANTAGES OF THE ALDEN METHOD.

We copy the following from the *Sacramento Record* :

"The advantages of the Alden Method over canning or sun-drying are manifest. In the first place the flavor of the fruit is retained to an almost, if not to an equal extent in the Alden Process as in the canning. For our own part, to the fruits we have tried preserved by the Alden Process, we give the preference over canned, for table use and for cooking purposes, and we think that will be the general verdict. \* \* \* \* \*

By sun-drying, the fruit undergoes a complete fermentation, thereby destroying all the natural flavor of the green fruit, and substituting dried fruit taste, so inseparable from all fruits dried in this way. Again, it is next to impossible to conduct the business of drying in the sun on a scale equal to the demands of California producers. This proposition needs no proof. Experience has demonstrated this. Then, too, the insects in our peculiar climate are destruction to the sun-dried fruit by depositing eggs on the same, while exposed to dry, unless before packing the fruit shall be subjected to a process by which they shall be destroyed. This latter process would be an extra expense almost equal to the whole expense of the Alden Process, and then you will have an inferior article at greater cost."

LITTLEFIELD, WEBB & CO, }  
Wholesale Commission Merchants, }  
SAN FRANCISCO, Dec. 20, 1875. }

To G. W. DEITZLER, Esq.,

*President Alden Fruit Preserving Company of California.*

DEAR SIR:—In response to your enquiry of this date concerning our operations in the Alden Fruit and Vegetables for the past year, we beg to submit the following :

We are pleased to note a steady and increasing demand for these goods—a demand coming not alone from one quarter, but gradually extending to every section of the Pacific Coast and Territories, as well as the Eastern and Southern States and Europe, and pervading (though slightly as yet) the Australian colonies, who are large consumers of canned and dried fruits, which trade in this particular line, if it can once be secured, will form no small item in our export lists.

We would call the attention of the Alden factories to the advisability of packing their goods (or at least a portion of them) in attractive, handy packages, for the retail trade—say in one and two pound paper boxes, and perhaps some five-pound packages would not be amiss.

This still would be much more satisfactory, we imagine, to storekeepers, etc., as the goods would not only be more convenient to handle than as present packed, but a more attractive display could be made, which would naturally tend to increase the sale. This

course has been pursued, we believe, by many Eastern factories operating under the Alden process, with satisfactory results, and we think the plan could be carried out here with profit. While we as yet carry a full line of apples and pears, we have been compelled, in order to supply our local demand, to order certain kinds of Alden goods from the Eastern markets, though we can see no good reason why this state of affairs should exist ; and we trust that during the coming season the remedy will be applied, and California will not be obliged to depend upon the East for certain descriptions of Alden goods, which can be produced here in such abundance, and for which a good market has been found at prices which certainly should leave a fair margin for the factory.

We have continued to devote our best care to the Alden interests, and have left nothing undone to introduce and make known the goods at all new points where there was likelihood of sale. At the same time, however, we notice that some factories are disposed to "chop" around and create competitive agencies for the sale of the goods, which policy is, in our opinion, if long pursued, calculated to prove prejudicial to the Alden interests of the entire coast. As we have before intimated, to secure harmony and a uniform price in the disposal of the Alden goods, from different factories (the goods being of equal quality), shipments should be made to one general sole agency, whereby all competition would be prevented, and the best interests of all concerned subserved by such action.

With our best wishes for your continued success, believe us, dear sir, yours truly,

LITTLEFIELD, WEBB & CO.

#### GOLD MEDAL.

##### REPORT OF THE COMMITTEE OF THE CALIFORNIA STATE AGRICULTURAL SOCIETY, 1874.

"Your committee beg to report, that in examining the dried fruits on exhibition, they were highly pleased with the excellent quality and great commercial value of the fruits and vegetables entered by Geo. W. Deitzler, President of the Alden Fruit Co., of California.

These articles are not dried in the common acceptation of the term, but are preserved in their own juices by this peculiar process, and it is claimed will keep for years in any climate. The flavor of the fresh fruit is retained and it is free from that dark and leathery appearance which is always found in the sun or kiln-dried fruits.

The Committee have no hesitation in expressing the opinion that as regards appearance and flavor, the articles are the best on exhibition. The value of such fruits and vegetables is very great.

California can produce in unlimited quantities the finest fruits and vegetables in the world, but we have not the resident population to consume these immense productions in their fresh state, and they will not bear transportation to distant markets ; neither can we hope to find a remunerative market for inferior dried fruits and vegetables at home or abroad ; but for such preserved articles as those under consideration, there is, it seems, no danger of overstocking the market.

When we consider that there are imported annually over FIFTEEN MILLION DOLLARS' worth of dried fruits, all of which articles can be raised in California and placed upon the markets in a cured condition infinitely superior to the imported articles, the importance of this industry can be appreciated.

In view of these considerations we deem the articles on exhibition by the Alden Company as worthy of special notice, and we respectfully recommend that the Board of Directors award to the Company the Gold Medal, and give to their valuable and growing industry every possible encouragement."

W. C. HOPPING,  
ALFRED BRIGGS,  
W. R. STRONG.

We are gratified to be able to state that the Society awarded to us both the Silver and Gold Medals, *and we propose to keep them*, having no fear of competition.

### SUN-DRIED FRUIT A FAILURE.

Owing to the peculiarity of our climate, a climate in which fruit may be dried as rapidly and with as little expense as in any other country, the system of drying fruit in the sun is practically a failure. This may strike those who have thought but little on the subject, and who have had no experience, as a strange proposition; but, to the practical man, the man who has dried fruit in the sun, and kept the same any length of time before disposing of it, and to the merchant who has been dealing in sun-dried fruits, and had box after box returned to him, it is very plain and easily understood. In whatever country you dry fruits in the sun, exposed to insects, they will deposit more or less eggs upon it. If that country be a cold one, like the Atlantic States, for instance, the cold weather generally sets in so early that these eggs are not hatched out in the Fall, and the fruit is consumed before the warm weather of the following Spring; and the consumers are none the wiser for having consumed with the fruit millions of insects' eggs. In this State, however, these eggs hatch out in the Fall, and very generally destroy the fruit before it is required for consumption. Our dealers generally understand the danger of dealing in sun-dried fruit, and many of them have suffered by so doing; and we, in the line of our business, have also had a little experience, which we will relate. While Secretary of the State Agricultural Society, we made an exhibition of some of the products of our State, at the International Exposition at Paris. At the State Fair of 1866, Briggs Bros., the extensive orchardists of Marysville, exhibited a number of boxes of dried fruits of various kinds, put up in a good shape for commerce. The fruit itself was in splendid order, and attracted general attention at the Fair, and we solicited and obtained the whole to send among other articles to Paris. After the Fair, some two months elapsed before it was time to forward the goods to New York, and the boxes remained in a safe place undisturbed. When ready to ship, we opened one of the boxes, and found that the fruit had turned to a mass of worms. Not one box was found but was in the same condition.

The peculiarity of our climate, therefore, requires that our fruit be dried by artificial means, or that all the sun-dried fruit to keep or to ship be put through some process by which the insect's eggs may be killed. Unless subjected to some process that will effect this, it is neither safe to the individual or good policy to ship it out of the State, or to sell it to those who desire to keep it for Winter use.—*Sacramento Record*.

### ALDEN FRUIT.

A careful perusal of the Alden Fruit Preserving Company's circular for 1875, together with a critical examination of the fruits and vegetables preserved by this peculiar process, is fully convincing that this new industry, which is already so well established and promises rapid development, will bring millions of dollars into our State. We can raise the finer varieties of fruits, such as peaches, plums, prunes, apricots, raisin grapes and figs, in unlimited quantities, and these fruits can be cured by the Alden process and placed upon the market in an imperishable condition, and infinitely superior to the imported articles. The Alden goods have a prestige, and are becoming well known in all the great market centers of the country, and command a high price wherever offered. These facts are worthy the attention of persons who propose engaging in the business of fruit drying. Experiments are always costly. Therefore, when the merits and utility of an invention are established and recognized, and the products of that invention become staple, it is well to consider the probable cost attendant upon experimentation with imitations. There may be other processes equally good, but of the many fruit dryers that have been patented since the introduction of the Alden process, some four years ago, not one has, to our knowledge, been put into successful operation. Our fruit growers had undoubtedly better adopt the plan that stands, after several years' trial, a demonstrated success, rather than to venture upon new things whereof they can have no assurance of merit. One year's crop of fruit may enrich a man, or the loss of it break him; hence it is better to use a process that has been tested, and be sure to save it. If any fruit growers are tempted to experiment, they should require the vendors to establish the works at their own expense, and if the result show that what has been promised is performed, and that as good an article as that made by the Alden process is produced at no greater cost, then the price agreed upon should be paid. This plan would save trouble, cost and delay to our fruit growers, and if it is not satisfactory to the agents of the new fruit dryers, it is but fair to suppose that their contrivances lack substantial merit.

Even if it were possible to succeed in making as good an article as the Alden by any imitative process, and at no greater cost, it cannot be supposed that goods so produced would have an equal market value with the Alden, which would have the great advantage of being known and appreciated by consumers. A new product, equally good, under a new name, would meet with a comparatively slow demand.

We must have a uniformly good article, keep up the highest standard of excellence, and so get a *reputation* for California dried fruit, which will always secure for it a good price, for we have the world for a market and our own time to sell.—*Daily Evening Post.*

Below is given an estimate of a day's work of 24 hours for a factory of five evaporators. This is founded on the experience of the past season.

#### PARED PEACHES.

10 tons Fruit, at \$20 00.....	\$200 00
50 Boys and Girls or Chinamen, at 75c.....	37 50
1 1/4 cords Wood, at \$8 00.....	10 00
2 Foremen, at \$1 50.....	3 00
1 Superintendent.....	2 50
30 Boxes, at 25c.....	7 50
1 packer, at \$1 50 .....	1 50

\$252 00

Evaporated Peaches, 2,000 lbs., at 33c. per lb. 660 00

#### APPLES.

10 tons Apples, at \$10 per ton.....	\$100 00
Paring and Coring 320 Boxes, at 8c. per box	25 00
1 1/4 cords of Wood, at \$8 00.....	10 00
2 Foremen and Superintendent.....	10 00
40 cases, at 25c .....	10 00
Packing and Incidentals.....	7 50

\$163 10

Evaporated Apples, 2,500 lbs., at 14c per lb.... 350 00

Deduct from this the value of cores and skins, and it will reduce the cost below 6 cents per lb.

#### FRENCH PRUNES.

7 tons Fruit, at \$40.....	\$280 00
8 Boys and Girls or Chinamen, at 75c.....	6 00
1 1/4 cords Wood, at \$8 00.....	10 00
Foremen and Superintendent.....	5 50
Packers and Incidentals.....	10 00
132 Boxes, at 15c.....	19 80

\$331 30

Yield, 4,666 lbs., at 17c. per lb..... 793 22

#### TOMATOES.

8 tons Fruit, at \$10 00.....	\$80 00
100 Boys and Girls or Chinamen, at 75c.....	75 00
1 1/4 cords Wood, at \$8 00.....	10 00
Foremen and Superintendent.....	10 00
75 ten pound Boxes, at 11 cts.....	8 25
Packer, \$2 50; Incidentals, \$5 00.....	7 50

\$190 75

Yield, 1,000 lbs., at 75c. per lb..... 650 00

Contracts can be made with Chinamen, by which the expense of paring the fruit, etc., can be considerably reduced.

#### TAB E OF PRINCIPAL ARTICLES EVAPORATED, WHOLESALE PRICES, YIELD, ETC.

	Capacity of one machine per day of 24 hours, green.	Capacity of one machine per day of 24 hours, evaporated.	Per cent. of Yield.	No. pounds Fresh equal to 1 pound Dry.	Wholesale prices per boxes of 50 lbs.	Equivalent price per pound for Fresh Fruits.
Apples.....	4000 lbs.	500 lbs.	12 1/2	08	16	02
Apricots.....	4000	560	14 3/4	7	32	4 1/2
Beef.....	3000	500	20	5	40	8
Cherries.....	4000	440	16 1/4	6	55 @ 75	9 1-6 @ 12 1/2
Corn.....	4000	900	11	9	30	3 1/3
Currants.....	2000	300	13 1/3	7 1/2	30	4
Nectarines.....	4000	400	10	10	40	4
Onions.....	2000	200	10	10	40	4
Peaches, pared.....	4000	400	10	10	30	3
Plums.....	4000	640	16 1/3	6	30	5
Potatoes.....	3000	660	22	4 1/2	14	3 1-10
Prunes, French.....	3000	880	33 1/3	3	30	10
Peas.....	4000	360	9	11	45	4
Pears.....	4000	560	12 1/2	8	30 @ 45	3 3/4 @ 5 5/8
Pumpkin.....	3400	340	10	10	20	2
Rhubarb.....	3400	275	8 1/3	11 1/4	40	3 1/2
Squash.....	3400	240	10	10	20	2
Tomatoes.....	4000	280	6 1/4	16	75	4 3/4

Below we give a table showing the retail price of Alden products and of canned goods, to which we invite your attention.

VARIETY.	No. lbs. Fresh equal to 1 Dry.	Retail Price.	Equivalent price per 2-lb can.	Actual price per 2-lb can.
Apples...	8	\$ 0 20	\$ 0 05	\$ 0 40
Apricots...	7	40	11	50
Beef...	5	50	20	50
Cherries...	6	75@1 co	25 @ 33	50
Corn ...	9	40	9	35
Currants...	7½	40	10½	50
Nectarines...	10	50	20	50
Onions...	10	50	20	
Peaches...	10	40	8	50
Unpared Peaches...	8	25	6½	
Peas...	11	55	11	40
Plums...	6	40	13½	50
Potatoes...	4½	18	8	
Prunes...	3	35	23	40
Pumpkins...	10	25	5	
Pears...	8	40@50	10@12½	50
Grapes ...	3½	20		50
Rhubarb...	11¼	50	10	40
Squash...	10	25	5	
Tomatoes	16	90	11½	20

The above tables furnish a basis for an estimate of the direct profits of an Alden Factory, which will be found to be invariably larger than can be realized from any other manufacturing enterprise in California, requiring the same amount of capital. The indirect profits to the community in which the factories are located will prove much larger, as it will enable fruit growers to utilize all their marketable fruits, which would otherwise be a dead loss.

These estimates of yield are based, so far as possible, from the average result of a full season's work. There is great difference in the yield of some species of fruit. Peaches range from 7 to 14 per cent. On pears one factory reported an average yield of 9 per cent., and another of 14 per cent.

We would call your special attention to vineyards of Mission Grapes, and neglected or unprofitable orchards. By grafting upon the vines raisin grapes, (the Muscat family are the best), and upon the trees the best variety for drying, they can be made in two years very valuable. In planting an orchard, select say an equal variety of early, medium and late fruits, so that a factory may be kept in operation as long as possible, which will bring the best results.

#### ALL WHO LIKE GOOD, CLEAN FOOD

Should examine the Alden product. We claim that they are equal to the fresh fruit for pies, puddings and other confections, that they are superior to fresh in ripeness, digestibility and economy, that only one-half the sugar is necessary in cooking, because a part of the starch has been converted into sugar in the process of evaporation. That *one* pound of this fruit is equal to *two* of that dried or dessicated in the ordinary way ; that it is wholly free from dirt and insects, and that the average cost is not more than *one-third* that of an equivalent of canned goods. We invite you to test carefully all these claims.

## DIRECTIONS FOR USE.

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DO NOT WASH OR RINSE.

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Soak in cold or hot water. Hot water will do the work quicker.

*For Cooking Corn.*—(5 ozs. equal to one 2-lb. can.) Soak in water until soft. Boil in same water, adding water as required.

*For Cooking Peas.*—(3 ozs. equal to one 2-lb. can.) Soak in water until soft. Boil in same water, adding water as required.

*For Cooking Apricots.*—(2½ ozs. equal to 1 lb. fresh.) *For Sauce.*—Soak in water, one pint to 2½ ozs., until soft. Cook in same water, adding one-half the sugar ordinarily used in fresh. *For Pies.*—Soak and use WITHOUT cooking, putting the water with the fruit.

*For Cooking Currants.*—(3½ ozs. equal to 1 lb. fresh.)—*For Sauce.*—Soak in one-half pint of water, 3½ ozs. until soft. Cook in same water, adding one-half the sugar ordinarily used in fresh. *For Pies.*—Soak and use WITHOUT cooking, putting the water with the fruit. *For Jelly.*—Add 8 quarts of water to 2 pounds, and make as fresh. Result, equal to 10 lbs. of fresh fruit.

*For Cooking Potatoes.*—*For Fried Potatoes.*—Soak until soft, then drop the slices in hot lard, and fry until brown. *For Mashed Potatoes.*—Soak as before, then boil until nearly dry.

*For Cooking Pears, Plums, Apples, Peaches, Rhubarb, Onions, Etc., Etc.*—Soak in water until soft. Cook as fresh, adding water as required. If properly prepared, result is equal to fresh fruits and vegetables.

Bear in mind that from 60 to 80 per cent. of the fresh fruits and vegetables is water, which is absent in the Alden products. You must add as much water as we remove by evaporation, and as much more as you would in cooking the fresh articles.



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